Claims

1. A large-area radiator with a front pane and a rear element, wherein the front pane is kept apart from the rear element by means of spacer elements, wherein a gaseous filler has been introduced into the space between the front pane and the rear element and is at a lesser pressure than the pressure of the surrounding atmosphere, and wherein the front pane is made of a glass material,

characterized in that

the front pane and/or the rear element are embodied as at least partially thermally or chemically tempered glass panes.

2. The large-area radiator in accordance with claim 1,

characterized in that

the temperature, at which the viscosity of the glass material of the thermally tempered front pane and/or rear element is 13.6 dPas (TG temperature), is greater than 550°C.

3. The large-area radiator in accordance with claim 1 or 2,

characterized in that

the measurement of the wall thickness of the thermally tempered front pane and/or back element is 1.5 mm to 2.1 mm, and/or the thermal tempering is greater than or equal to 60 Mpa.

4. The large-area radiator in accordance with claim 1,

characterized in that

the measurement of the wall thickness of the thermally tempered front pane and/or back element is greater than 0.5 mm, and/or is tempered by means of a chemical tempering of more than 160 MPa.

5. A large-area radiator with a front pane and a rear element, wherein the front pane is kept apart from the rear element by means of spacer elements, wherein a gaseous filler has been introduced into the space between the front pane and the rear element and is at a lesser pressure than the pressure of the surrounding atmosphere, and wherein the front pane is made of a glass material,

characterized in that

the front pane and/or the rear are embodied as glass panes which are at least partially provided with a coating consisting of a ductile polymer material.

6. The large-area radiator in accordance with claim 5,

characterized in that

the coating is embodied as a film and consists of silicon, polyurethane or polymer material, selected from the group of the ormoceres.

7. The large-area radiator in accordance with claim 5 or 6,

characterized in that

the coating has a thickness of more than 6 µm.

8. The large-area radiator in accordance with claim 7,

characterized in that

the thickness of the coating lies within the range of 6 µm and 50 µm.

9. The large-area structure in accordance with one of claims 5 to 8, characterized in that

a primer is used for bonding the coating to the surface of the glass pane, preferably dimethoxydimethyl silane or hexamethyl disilazane.

10. The large-area radiator in accordance with one of claims 5 to 9, characterized in that

the glass pane is at least partially thermally or chemically tempered.

11. The large-area radiator in accordance with one of claims 1 to 10, characterized in that

wavy spacer elements are arranged between the front pane and the rear element, which is also embodied as a glass pane, wherein the wavy line extends parallel with the planar extension of the front pane.

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